

Chloroprene and Toluene Air Emissions Released During the Denka Performance Elastomer November-December 2017 Turn Around

By Wilma Subra subracom@aol.com

December 26, 2017

A turn around was scheduled to be conducted by Denka Performance Elastomer beginning about November 20, 2017. The turn around was to install the Regenerative Thermal Oxidizer and other air emission control technologies.

During the turn around, Reserve community members have complained of excess air emissions and acute health impacts.

On December 18, 2017, I receive a copy of the Denka Fenceline Monitoring Results for November 2017 from Denka. Just prior to the Christmas holiday break, EPA posted the Chloroprene air monitoring results for November 21 and 27, 2017.

During the initial week of the turn around, elevated levels of Chloroprene and Toluene were detected in the air samples collected by EPA and Denka (see attached tables).

EPA's newest posted data, during the turn around included two locations with the highest concentrations of Chloroprene ever detected since the beginning of the air monitoring program on May 25, 2016. At Ochsner Hospital the highest concentration of Chloroprene ever, occurred on November 25, 2017, 89.2 ug/m³. The highest concentration of Chloroprene at this location, prior to the November-December turn around, was 66.7 ug/m³ on November 21, 2016. At East St. John the Baptist High School the highest concentration of chloroprene ever, occurred on November 25, 2017, 39.5 ug/m³. The highest concentration of Chloroprene at this location, prior to the November-December turn around, was 24.9 ug/m³ on October 4, 2016.

Denka's November 2017 data during the turnaround included two locations with the highest concentrations of Toluene ever detected since the beginning of the air monitoring program on August 8, 2016. At the Denka's Western Edge of the Denka Property, the highest concentration of Toluene ever, occurred on November 27, 2017, 54.3 ug/m³. The highest concentration of Toluene at this location, prior to the November-December turn around, was 16.2 ug/m³ on April 12, 2017. In Edgard, on the West Bank of the Mississippi River, the highest concentration of Toluene ever, occurred on November 27, 2017, 10.7 ug/m³. The highest concentration of Toluene at this location, prior to the November-December turn around, was 4.3 ug/m³ on January 13, 2017.

In addition to the highest ever Chloroprene and Toluene concentrations during the November-December turn around, Chloroprene and Toluene air concentrations increased in November 2017 from before the turn around to during the turn around at a number of EPA and Denka air monitoring locations.

Air Monitoring Locations with Increases in Chloroprene and Toluene during November 2017 , Before and During Turn Around

EPA Acorn and Hwy 44 – Chloroprene

Highest Concentration During Nov., prior to the turn around	4.28 ug/m ³
Highest Concentration during the turn around in November	17.3 ug/m ³

Denka Eastern Boundary, Entergy Substation - Chloropren

Highest Concentration during Nov., prior to the turn around	2 ug/m ³
Highest Concentration during the turn around in November	23.9 ug/m ³

Denka Western Edge of Denka Facility – Chloroprene

Highest Concentration During Nov. prior to the turn around	29.7 ug/m ³
Highest Concentration during the turn around in November	84.7 ug/m ³

Denka Edgard, West Bank of Mississippi River – Chloroprene

Highest Concentration During Nov. prior to the turn around	0.2 ug/m ³
Highest Concentration during the turn around in November	14.7 ug/m ³

Denka Eastern Boundary, Entergy Substation - Toluene

Highest Concentration During Nov. prior to the turn around 1.9 ug/m3

Highest Concentration during the turn around in November 4.6 ug/m3

Denka Mississippi River Levee – Toluene

Highest Concentration During Nov. prior to the turn around 12.2 ug/m3

Highest Concentration during the turn around in November 14.1 ug/m3

The highest air concentrations of Chloroprene and Toluene and the elevated concentrations of Chloroprene and Toluene in the air during the initial week of the November-December turn around, are of grave concern for the exposure of Reserve community members, who were being exposed to even higher concentrations of Chloroprene and Toluene when compared to the already excessive air concentrations of these chemicals on an ongoing basis.

Wilma Subra

Denka Air Monitoring

Chloroprene (ug/m3)

Date	Locations					
	1	2	3	4	5	6
11-3-17	2	ND	0.2	ND	ND	0.2
11-8-17	ND	ND	2.4	13.2	ND	ND
11-13-17	ND	ND	29.7	2	ND	0.2
11-17-17	ND	ND	ND	ND	0.4	ND

Turn Around Proposed to be Start November 20, 2017

11-21-17	ND	ND	25	1	ND	0.2
11-27-17	23.9	0	84.7	1.4	0	14.7

Toluene (ug/m3)

11-3-17	1.9	ND	ND	ND	4.1	ND
11-8-17	ND	2.5	2.2	12.2	ND	ND
11-13-17	ND	ND	2.8	5.7	ND	ND
11-17-17	ND	ND	ND	ND	ND	ND

Turn Around Proposed to be Start November 20, 2017

11-21-17	ND	ND	4	4.3	2.4	ND
11-27-17	4.6	2.6	54.3*	14.1	3.8	10.7*

1 Eastern Boundary, Entergy Subst.

4 Mississippi River Levee

2 Intersection Hwy 44 and IC Railroad

5 Southwest Corner of Hospital

3 Western edge of Denka property

6 Edgard, St. John Court House

*Highest Toluene concentrations ever on Western Edge and Edgard

EPA Air Monitoring

Chloroprene (ug/m3)

Date	Locations					
	1	2	3	4	5	6
11-1-17	19.5	0.036	1.44	1.65	0.033	0.025
11-4-17	7.94/7.29	0.029	2.13	0.646	ND	0.127
11-7-17	0.167	4.28	0.769	0.033	ND	1.44/1.37
11-10-17	1.37	1.20	0.025	2.33	6.89/6.46	0.025
11-13-17	6.20	0.033	0.029	34.1/32.1	0.21	0.029
11-16-17	28.8	0.044	0.036	41/32.4	0.649	0.036
11-19-17	0.033	0.138	0.036	0.036	24.6	0.192
Turn Around Proposed to Start 11-20-2017						
11-22-17	0.464	0.062	0.025	8.2/10.9	2.7	0.036
11-25-17	21.3/22.4	17.3	39.5*	6.2	21.1	89.2*

1 Chad Baker

2 Acorn & Hwy 44

3 East St. John High School

4 Fifth Ward Elementary School

5 Mississippi River Levee

6 Ochsner Hospital

0.033 Below Method Detection Limit

*Highest Chloroprene concentration ever at East St. John the Baptist High School and Ochsner Hospital